Hugh L. Carey Battery Park City Authority Meeting of the Investment Committee 200 Liberty Street, $24^{\text {th }}$ Floor New York, New York 10281

December 16, 2020 12:30 p.m.

## AGENDA

## I. CALL TO ORDER

II. APPROVAL OF THE AUGUST 26, 2020 MINUTES
III. QUARTERLY INVESTMENT REPORT
IV. RATE SENSITIVITY ANALYSIS
V. MOTION TO ADJOURN

# Hugh L. Carey Battery Park City Authority 

## Review of Investment Performance

Quarter Ended October 31, 2020

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## I. Executive Summary

## Aggregate Portfolio Composition and Credit Quality

| Security Type ${ }^{1}$ | October 31, 2020 | $\%$ of Portfolio | Effective Duration | July 31, 2020 | \% of Portfolio | Effective Duration | QoQ Change (\% of portfolio) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$446,490,443 | 89.1\% | 0.82 | \$488,746,521 | 86.5\% | 0.75 | 2.5\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$21,174,423 | 4.2\% | 1.89 | \$26,790,965 | 4.7\% | 1.70 | (0.5\%) |
| Commercial Paper | \$19,598,474 | 3.9\% | 0.08 | \$25,246,695 | 4.5\% | 0.21 | (0.6\%) |
| Municipals | \$9,797,076 | 2.0\% | 1.88 | \$19,338,244 | 3.4\% | 0.98 | (1.5\%) |
| Government MBS | \$4,208,215 | 0.8\% | 2.94 | \$4,631,300 | 0.8\% | 2.91 | 0.0\% |
| Totals | \$501,268,631 | 100.0\% | 0.88 | \$564,753,725 | 100.0\% | 0.80 |  |



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.
3. NR holdings are not rated by S\&P but rated by Moody's and are in compliance with BPCA's Investment Policy.

## Performance Overview - Total Return Strategies - October 31, 2020

|  | Past <br> Quarter | Past 12 <br> Months | Past <br> Inception |
| :--- | :--- | :--- | :--- | :--- |
| Long-Term Strategy: |  |  |  |
| Inears |  |  |  |

## Notes:

[^0]
3. Since inception performance for all portfolios other than 'BPCA Other Post Employment Benefits' and 'BPCPC Other Post Employment Benefits' is calculated from January 31, 2006 to present
4. For the 'Reserve Fund,' the inception of the BAML 1-5 Year Treasury Index as the performance benchmark is July 31, 2013. For prior periods, the BAML 1-10 Year Treasury Index was utilized.
5. Since inception performance for the 'BPCA Other Post Employment Benefits' is calculated from January 31, 2008 to present.
6. Since inception performance for the 'BPCPC Other Post Employment Benefits' is calculated from February 12, 2010 to present.

## Portfolio Recap - Market Drivers

## Economy

- Global health crisis: Coronavirus restrictions were gradually eased throughout the U.S. but were followed by regional hot spots of infection, reminding people of how long the virus may linger.
- U.S. second quarter GDP plunged by a record annualized rate of 31.7\%. For context, GDP fell by $8.4 \%$ during the height of the 2008 financial crisis. However, other economic indicators were surprisingly strong and recovered at a faster pace than originally expected, leading various economists to pull forward the expected timeframe for recovery.
- The labor market has shown steady improvements with the number of Americans filing weekly for unemployment benefits falling to 751,000 , the lowest mark since mid-March. October's jobs report was solid, albeit less robust than the prior month's report. The U.S. economy added 661,000 jobs, and the jobless rate fell to $6.9 \%$.


## Federal Reserve

- The Federal Reserve (Fed) continued to play a large role in supporting financial market stability. The central bank reaffirmed its ongoing support of many bond market sectors through its continuing purchase and liquidity programs, and it extended the expiration date of many of its lending facilities. The Fed also extended its forward guidance regarding zero short-term interest rates through 2023.


## U.S. Treasury Yields

- The U.S. Treasury yield curve steepened due to better-than-projected economic data, large treasury issuance funding the record budget deficit, and increasing inflation expectations. The yield on shorter tenors remained relatively unchanged and anchored near zero, while the yield on longer tenors (greater than two years) moved noticeably higher.


## Portfolio Recap - Performance \& Cash Flows

## Longer-Term Funds

- Long-term portfolios outperformed benchmarks for the quarter and the fiscal year. Contributors to outperformance include the portfolios' modestly short duration position and improvements in the municipal and supra sovereign sectors
- Absolute returns were negatively impacted by higher rates and a steeper yield curve. The yield difference between the 2-year and 10-year Treasury widened from approximately 57 basis points ( $0.57 \%$ ) to almost 70 basis points (0.70\%)
- Most fixed income sectors outperformed Treasuries during the quarter. Allocations to the supra sovereign and municipal sectors were positive contributors to performance


## Short-Term Funds

- The Operating Fund and Pledged Revenue portfolio performed in-line with the benchmark for the quarter and fiscal year
- Short-term portfolios were positioned in preparation for the new fiscal year. As a result, the Pledged Revenue portfolio's duration was shortened as the fiscal year closed
- Commercial paper yields tightened significantly during the quarter limiting the use in short-term portfolios. We continue to monitor this sector and will look for opportunities to add exposure if conditions change


## Investment Guidelines Compliance

| Compliance Issuer Check |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issuer | Actual (\%) | Actual (\$) | IPS Limit | S\&P Rating | Moody's Rating | Check |
| U.S. Treasury | 89.07\% | 446,490,443 | 100\% | AA+ | Aaa | OK |
| Toyota Motor Credit Corporation | 1.99\% | 9,998,550 | 5\% | A-1+ | P-1 | OK |
| Fannie Mae | 1.38\% | 6,936,044 | \$250,000,000 | AA+ | Aaa | OK |
| International Bank of Recon and Development | 1.15\% | 5,775,993 | - | AAA | Aaa | OK |
| Pfizer Inc. | 0.89\% | 4,465,745 | 5\% | A-1+ | P-1 | OK |
| Asian Development Bank | 0.81\% | 4,049,196 | - | AAA | Aaa | OK |
| New York City | 0.70\% | 3,509,643 | 10\% | AA | Aa2 | OK |
| International American Development Bank | 0.61\% | 3,048,072 | - | AAA | Aaa | OK |
| New York City Transitional Finance Authority | 0.60\% | 2,983,218 | 10\% | AAA | Aa1 | OK |
| JP Morgan | 0.49\% | 2,449,893 | 5\% | A-1 | P-1 | OK |
| Ginnie Mae | 0.39\% | 1,935,794 | \$250,000,000 | AA+ | Aaa | OK |
| African Development Bank | 0.38\% | 1,892,315 | - | AAA | Aaa | OK |
| Apple Inc | 0.35\% | 1,734,818 | 5\% | A-1+ | P-1 | OK |
| Small Business Administration | 0.30\% | 1,506,957 | 100\% | AA+ | Aaa | OK |
| New York State | 0.23\% | 1,161,234 | 10\% | AA+ | Aa2 | OK |
| Salt River Project | 0.19\% | 949,468 | 5\% | A-1+ | P-1 | OK |
| Maryland State | 0.14\% | 713,944 | 10\% | AAA | Aaa | OK |
| Delaware State | 0.11\% | 542,748 | 10\% | AAA | Aaa | OK |
| NY State Dorm Authority | 0.08\% | 424,761 | 10\% | NR | Aa2 | OK |
| New York State Development Corporation | 0.07\% | 357,828 | 10\% | AA+ | Aa2 | OK |
| Freddie Mac | 0.05\% | 238,266 | \$250,000,000 | AA+ | Aaa | OK |
| Babylon, Town of | 0.02\% | 103,699 | 10\% | AA+ | Aaa | OK |

[^1]
## Change in Value - Total Return Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+-) | Net Transfers ${ }^{2}$ | (+-) | Change in Value | = | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Longer Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Reserve Fund | \$35,116,031 |  | \$0 |  | (\$65,195) |  | \$35,050,836 |
| BPCPC Operating Reserve Contingency | \$14,709,807 |  | \$12,539 |  | (\$66,603) |  | \$14,655,743 |
| Insurance Fund | \$6,324,416 |  | \$0 |  | (\$28,626) |  | \$6,295,790 |
| Operating Budget Reserve | \$10,746,028 |  | \$10,000,000 |  | $(\$ 46,412)$ |  | \$20,699,616 |
| BPCA Other Post-Employment Benefits | \$28,319,227 |  | \$0 |  | $(\$ 122,864)$ |  | \$28,196,363 |
| BPCPC Other Post-Employment Benefits | \$14,877,993 |  | \$0 |  | $(\$ 67,956)$ |  | \$14,810,037 |
| Subtotal | \$110,093,502 |  | \$10,012,539 |  | $(\$ 397,656)$ |  | \$119,708,385 |
| Shorter Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Pledged Revenue | \$192,405,846 |  | \$16,272,286 |  | \$64,212 |  | \$208,742,343 |
| 2003 Project Operating Fund | \$7,960,254 |  | (\$3,846) |  | \$2,096 |  | \$7,958,504 |
| Subtotal | \$200,366,100 |  | \$16,268,439 |  | \$66,308 |  | \$216,700,847 |
| Total | \$310,459,602 |  | \$26,280,978 |  | (\$331,348) |  | \$336,409,232 |

Notes:

1. Beginning Period Value is as of July 31, 2020 and Ending Period Value is as of October 31, 2020. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
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Net Transfers represent the total portfolio contributions and withdrawals during the quarter

## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+\|-) | Net Transfers ${ }^{2}$ | (+ノ-) | Change in Value | = | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFM Asset Management Accounts |  |  |  |  |  |  |  |
| Corporate Funds | \$851,240 |  | \$0 |  | \$281 |  | \$851,521 |
| 2000 Arbitrage Rebate | \$835,383 |  | \$0 |  | \$208 |  | \$835,590 |
| 1993 Unpledged Revenue | \$10,507,481 |  | \$3,779,001 |  | \$3,037 |  | \$14,289,519 |
| 2003 Residual Fund | \$1,091,329 |  | \$3,534 |  | \$259 |  | \$1,095,122 |
| Joint Purpose Fund | \$41,701,477 |  | (\$41,323,443) |  | \$3,623 |  | \$381,657 |
| Special Fund | \$965,506 |  | \$0 |  | \$240 |  | \$965,746 |
| BPCPC Operating Reserve | \$1,040,491 |  | \$0 |  | \$283 |  | \$1,040,774 |
| BPCA Goldman Sachs Liberty Contribution Fund | \$1,438 |  | \$0 |  | \$0 |  | \$1,438 |
| BPCA Series 2009A Project Costs | \$563,122 |  | $(\$ 19,167)$ |  | \$132 |  | \$544,087 |
| BPCA Series 2009B Project Costs | \$82 |  | \$0 |  | \$0 |  | \$82 |
| BPCA Insurance Advance | \$704 |  | \$0 |  | \$0 |  | \$704 |
| BPCA2013ACDE Proj Cost Sub AC | \$13,497,409 |  | (\$204,590) |  | \$3,634 |  | \$13,296,454 |
| BPCA Pier A Reserve Fund | \$996,179 |  | \$0 |  | \$248 |  | \$996,427 |
| BPCA Subordinated Pmt Acct | \$0 |  | \$0 |  | \$0 |  | \$0 |
| BPCA 2019A Comm Ctr SB Proj | \$4,948,117 |  | (\$868,260) |  | \$2,233 |  | \$4,082,090 |
| BPCA 2019A Sustainable Proj | \$67,314,889 |  | (\$5,287,227) |  | \$18,817 |  | \$62,046,480 |
| BPCA 2019ABCDE COI | \$5,628 |  | \$0 |  | \$0 |  | \$5,628 |
| BPCA 2019BDE Project | \$9,177,353 |  | $(\$ 17,887)$ |  | \$1,781 |  | \$9,161,246 |
| BPCA 2019C Pier A SB Proj | \$3,550,518 |  | \$0 |  | \$1,660 |  | \$3,552,178 |
| Subtotal | \$157,048,347 |  | (\$43,938,039) |  | \$36,437 |  | \$113,146,744 |

Notes:

1. Beginning Period Value is as of July 31, 2020 and Ending Period Value is as of October 31, 2020. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
2. Net Transfers represent the total portfolio contributions and withdrawals during the quarter.

## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+/-) | Net Transfers ${ }^{2}$ | (+/-) | Change in Value | = | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ramirez Asset Management Accounts |  |  |  |  |  |  |  |
| Liberty Terr Mariners Cove-K | \$304,967 |  | \$0 |  | \$59 |  | \$305,025 |
| Liberty House Mariners J | \$249,477 |  | \$0 |  | \$48 |  | \$249,524 |
| Rector Park L | \$34,735 |  | \$0 |  | \$7 |  | \$34,742 |
| Hudson View W Towers G | \$175,643 |  | \$0 |  | \$34 |  | \$175,677 |
| Hudson Towers E/F | \$213,605 |  | \$0 |  | \$41 |  | \$213,646 |
| Hudson View Towers C | \$188,548 |  | \$0 |  | \$36 |  | \$188,584 |
| Liberty Ct Mariners Cove B | \$622,633 |  | \$0 |  | \$130 |  | \$622,763 |
| Millenium | \$3,758,919 |  | \$0 |  | $(\$ 2,565)$ |  | \$3,756,353 |
| Liberty Battery Place Assoc 4 | \$449,051 |  | \$0 |  | \$86 |  | \$449,137 |
| South Cove Assoc 11 | \$407,819 |  | \$0 |  | \$78 |  | \$407,898 |
| Soundings Rector Park A | \$218,246 |  | \$0 |  | \$42 |  | \$218,288 |
| The Regatta Site 10 | \$497,794 |  | \$0 |  | \$105 |  | \$497,898 |
| Debt Service Junior Payments | \$27,051,440 |  | (\$3,575,056) |  | \$6,151 |  | \$23,482,536 |
| 2003 Debt Service Senior Payments | \$44,638,622 |  | \$0 |  | \$12,150 |  | \$44,650,772 |
| BPCA Millenium Tower Security Fund 2A | \$3,139,171 |  | \$0 |  | (\$1,922) |  | \$3,137,249 |
| BPCA S 16/17 Riverhouse Security Fund | \$6,669,795 |  | \$0 |  | $(\$ 3,864)$ |  | \$6,665,931 |
| BPCA Visionaire Security Fund | \$4,061,840 |  | \$0 |  | \$1,354 |  | \$4,063,195 |
| BPCA Pier A Security Deposit Account | \$426,882 |  | \$0 |  | \$82 |  | \$426,964 |
| BPCA One Rector Park Security Fund | \$996,156 |  | \$0 |  | $(\$ 2,155)$ |  | \$994,002 |
| BPCA Rector Square Security Fund Site D | \$229,600 |  | \$0 |  | \$44 |  | \$229,644 |
| BPCA WFC Tower C Retail Rent Escrow | \$258,883 |  | \$0 |  | \$49 |  | \$258,933 |
| BPCA River \& Warren Sec Fund - Site 19A | \$6,142,317 |  | \$0 |  | $(\$ 5,613)$ |  | \$6,136,704 |
| BPCA North Cove Marina Security Fund | \$53,155 |  | \$0 |  | \$10 |  | \$53,165 |
| Subtotal | \$100,789,300 |  | (\$3,575,056) |  | \$4,386 |  | \$97,218,630 |

[^2]
## II. Summary of Aggregate Portfolio

## Aggregate Portfolio Issuer Breakdown

|  | Security Type | October 31, 2020 | \%of Portfolio | July 31, 2020 | \% of Portfolio |
| ---: | ---: | ---: | ---: | ---: | ---: | QoQ \% Change

## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Pursuant to the Authority's Investment Policy, investments in obligations other than those backed by the full faith and credit of the U.S. Government are limited to the following: (1) Federal Agencies - $\$ 250$ million per issuer, (2) Commercial Paper - the lesser of $5 \%$ or $\$ 250$ million per issuer, (3) Bankers' Acceptances - the lesser of $5 \%$ or $\$ 250$ million per issuer and (4) Municipal Bonds - $10 \%$.
3. Federal Agencies and Instrumentalities includes Mortgage-Backed Securities.

## Portfolio Value - Total Return Accounts

|  | October 31, 2020 |  |  | July 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Longer Term Investment Strategy | Market Value | Effective <br> Duration | \% of Total Portfolio | Market Value | Effective <br> Duration | \% of Total Portfolio | QoQ \% <br> Change |
| 2003 Reserve Fund | \$35,027,979 | 2.72 | 7.0\% | \$35,076,320 | 2.78 | 6.2\% | 0.8\% |
| BPCPC Operating Reserve Contingency | \$14,650,910 | 3.64 | 2.9\% | \$14,702,066 | 3.54 | 2.6\% | 0.3\% |
| Insurance Fund | \$6,294,081 | 3.60 | 1.3\% | \$6,322,260 | 3.61 | 1.1\% | 0.1\% |
| Operating Budget Reserve | \$20,697,106 | 1.87 | 4.1\% | \$10,739,850 | 3.56 | 1.9\% | 2.2\% |
| BPCA Other Post-Employment Benefits | \$28,191,292 | 3.48 | 5.6\% | \$28,312,451 | 3.48 | 5.0\% | 0.6\% |
| BPCPC Other Post-Employment Benefits | \$14,808,257 | 3.53 | 3.0\% | \$14,872,349 | 3.49 | 2.6\% | 0.3\% |
| Subtotal Longer Term Investment Strategy | \$119,669,625 | 3.01 | 23.9\% | \$110,025,296 | 3.28 | 19.5\% | 4.4\% |

Short Term Investment Strategy

| 2003 Pledged Revenue | \$206,100,793 | 0.09 | 41.1\% | \$190,375,682 | 0.29 | 33.7\% | 7.4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2003 Project Operating Fund | \$7,957,770 | 0.18 | 1.6\% | \$7,959,675 | 0.08 | 1.4\% | 0.2\% |
| Subtotal Short Term Investment Strategy | \$214,058,564 | 0.10 | 42.7\% | \$198,335,356 | 0.28 | 35.1\% | 7.6\% |
| Subtotal of Total Return Accounts | \$333,728,189 | 1.14 | 66.6\% | \$308,360,653 | 1.35 | 54.6\% | 12.0\% |

[^3]Portfolio Value - Other BPCA Accounts

|  | October 31, 2020 |  |  | July 31, 2020 |  |  | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Market Value | Effective Duration | \% of Total Portfolio | Market Value | Effective <br> Duration | \% of Total Portfolio |  |
| Corporate Funds | \$850,645 | 0.41 | 0.2\% | \$850,364 | 0.62 | 0.2\% | 0.0\% |
| 2000 Arbitrage Rebate | \$834,970 | 0.06 | 0.2\% | \$834,994 | 0.00 | 0.1\% | 0.0\% |
| 1993 Unpledged Revenue | \$14,184,962 | 0.09 | 2.8\% | \$10,506,491 | 0.31 | 1.9\% | 1.0\% |
| 2003 Residual Fund | \$1,094,961 | 0.06 | 0.2\% | \$1,090,973 | 0.00 | 0.2\% | 0.0\% |
| Joint Purpose Fund | \$381,620 | 0.87 | 0.1\% | \$41,700,704 | 0.00 | 7.4\% | (7.3\%) |
| Special Fund | \$964,966 | 0.06 | 0.2\% | \$964,993 | 0.00 | 0.2\% | 0.0\% |
| BPCPC Operating Reserve | \$1,039,588 | 0.03 | 0.2\% | \$1,039,925 | 0.25 | 0.2\% | 0.0\% |
| BPCA Series 2009A Project Costs | \$543,865 | 0.27 | 0.1\% | \$562,908 | 0.14 | 0.1\% | 0.0\% |
| BPCA Series 2009B Project Costs | \$0 | 0.00 | 0.0\% | \$0 | 0.00 | 0.0\% | - |
| BPCA2013ACDE PROJ COST SUB AC | \$13,295,664 | 0.19 | 2.7\% | \$13,495,915 | 0.06 | 2.4\% | 0.3\% |
| BPCA PIER A RESERVE FUND | \$995,965 | 0.06 | 0.2\% | \$995,993 | 0.00 | 0.2\% | 0.0\% |
| BPCA SUBORDINATED PAYMENT ACCOUNT | \$0 | 0.00 | 0.0\% | \$0 | 0.00 | 0.0\% | - |
| BPCA 2019A Comm Ctr SB Proj | \$4,079,539 | 0.36 | 0.8\% | \$4,947,907 | 0.36 | 0.9\% | (0.1\%) |
| BPCA 2019A Sustainable Proj | \$62,040,234 | 0.30 | 12.4\% | \$67,310,684 | 0.37 | 11.9\% | 0.5\% |
| BPCA 2019ABCDE COI | \$0 | 0.00 | 0.0\% | \$0 | 0.00 | 0.0\% |  |
| BPCA 2019BDE Project | \$9,160,363 | 0.30 | 1.8\% | \$9,175,300 | 0.35 | 1.6\% | 0.2\% |
| BPCA 2019C Pier A SB Proj | \$3,550,935 | 0.31 | 0.7\% | \$3,549,974 | 0.00 | 0.6\% | 0.1\% |
| Liberty Terr Mariners Cove-K | \$304,739 | 0.73 | 0.1\% | \$304,926 | 0.25 | 0.1\% | 0.0\% |
| Liberty House Mariners J | \$248,787 | 0.73 | 0.0\% | \$248,940 | 0.25 | 0.0\% | 0.0\% |
| Rector Park L | \$33,971 | 0.72 | 0.0\% | \$33,992 | 0.25 | 0.0\% | 0.0\% |
| Hudson View W Towers G | \$174,850 | 0.73 | 0.0\% | \$174,958 | 0.25 | 0.0\% | 0.0\% |
| Hudson Towers E/F | \$212,818 | 0.73 | 0.0\% | \$212,948 | 0.25 | 0.0\% | 0.0\% |
| Hudson View Towers C | \$187,839 | 0.72 | 0.0\% | \$187,955 | 0.25 | 0.0\% | 0.0\% |
| Liberty Ct Mariners Cove B | \$622,270 | 0.74 | 0.1\% | \$622,077 | 0.31 | 0.1\% | 0.0\% |
| Millenium | \$3,755,870 | 0.65 | 0.7\% | \$3,758,825 | 0.27 | 0.7\% | 0.1\% |
| Liberty Battery Place Assoc 4 | \$448,616 | 0.73 | 0.1\% | \$448,891 | 0.25 | 0.1\% | 0.0\% |
| South Cove Assoc 11 | \$407,651 | 0.72 | 0.1\% | \$406,902 | 0.25 | 0.1\% | 0.0\% |
| Soundings Rector Park A | \$217,814 | 0.72 | 0.0\% | \$217,947 | 0.25 | 0.0\% | 0.0\% |
| The Regatta Site 10 | \$497,277 | 0.74 | 0.1\% | \$496,953 | 0.32 | 0.1\% | 0.0\% |
| Debt Service Junior Payments | \$17,665,482 | 0.49 | 3.5\% | \$25,639,507 | 0.22 | 4.5\% | (1.0\%) |
| 2003 Debt Service Senior Payments | \$7,783,008 | 0.48 | 1.6\% | \$44,638,022 | 0.23 | 7.9\% | (6.4\%) |
| BPCA Millenium Tower Security Fund 2A | \$3,137,048 | 0.65 | 0.6\% | \$3,138,945 | 0.26 | 0.6\% | 0.1\% |
| BPCA S 16/17 Riverhouse Security Fund | \$6,664,909 | 0.63 | 1.3\% | \$6,669,430 | 0.29 | 1.2\% | 0.1\% |
| BPCA Visionaire Security Fund | \$4,062,958 | 0.66 | 0.8\% | \$4,061,600 | 0.25 | 0.7\% | 0.1\% |
| BPCA Pier A Security Deposit Account | \$426,635 | 0.73 | 0.1\% | \$425,897 | 0.25 | 0.1\% | 0.0\% |
| BPCA One Rector Park Security Fund | \$993,319 | 0.67 | 0.2\% | \$995,933 | 0.30 | 0.2\% | 0.0\% |
| BPCA Rector Square Security Fund Site D | \$228,804 | 0.73 | 0.0\% | \$228,945 | 0.25 | 0.0\% | 0.0\% |
| BPCA WFC TOWER C RETAIL RENT ESCROU | \$258,778 | 0.73 | 0.1\% | \$257,938 | 0.25 | 0.0\% | 0.0\% |
| BPCA RIVER \& WARREN SEC FUND - SITE 19 | \$6,135,769 | 0.62 | 1.2\% | \$6,141,431 | 0.30 | 1.1\% | 0.1\% |
| BPCA NORTH COVE MARINA SECURITY FUNI | \$52,954 | 0.73 | 0.0\% | \$52,987 | 0.25 | 0.0\% | 0.0\% |
| Subtotal of Other BPCA Accounts | \$167,540,443 | 0.36 | 33.4\% | \$256,393,073 | 0.23 | 45.4\% | (12.0\%) |

## Aggregate Portfolio Summary: PFM Asset Management

| Security Type ${ }^{1}$ | October 31, 2020 | $\%$ of Advisor | $\begin{gathered} \% \text { of } \\ \text { Total } \\ \text { Portfolio } \end{gathered}$ | Effective Duration | July 31, 2020 | $\%$ of Advisor | $\begin{gathered} \% \text { of } \\ \text { Total } \\ \text { Portfolio } \\ \hline \end{gathered}$ | Effective Duration | $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$397,786,265 | 89.0\% | 79.4\% | 0.85 | \$406,632,447 | 87.4\% | 72.0\% | 0.90 | 1.7\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$21,034,714 | 4.7\% | 4.2\% | 1.90 | \$26,650,346 | 5.7\% | 4.7\% | 1.71 | (1.0\%) |
| Commercial Paper | \$16,669,064 | 3.7\% | 3.3\% | 0.08 | \$18,993,907 | 4.1\% | 3.4\% | 0.28 | (0.4\%) |
| Municipals | \$7,098,060 | 1.6\% | 1.4\% | 2.44 | \$8,533,670 | 1.8\% | 1.5\% | 2.22 | (0.2\%) |
| Government MBS | \$4,158,364 | 0.9\% | 0.8\% | 2.95 | \$4,577,409 | 1.0\% | 0.8\% | 2.94 | (0.1\%) |
| Totals | \$446,746,467 | 100\% | 89.1\% | 0.92 | \$465,387,777 | 100.0\% | 82.4\% | 0.97 |  |



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.
3. NR holdings are not rated by S\&P, but rated by Moody's and are in compliance with BPCA's investment policy

## Aggregate Portfolio Summary: Ramirez Asset Management

| Security Type ${ }^{1}$ | October 31, 2020 | $\%$ of Advisor | $\begin{gathered} \% \text { of } \\ \text { Total } \\ \text { Portfolio } \\ \hline \end{gathered}$ | Effective Duration | July 31, 2020 | \% of Advisor | $\begin{gathered} \% \text { of } \\ \text { Total } \\ \text { Portfolio } \end{gathered}$ | Effective Duration | QoQ Change (\% of Advisor) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$48,704,179 | 89.3\% | 9.7\% | 0.61 | \$82,114,074 | 82.6\% | 14.5\% | 0.25 | 6.7\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$139,709 | 0.3\% | 0.0\% | 0.93 | \$140,620 | 0.1\% | 0.0\% | 1.18 | 0.1\% |
| Commercial Paper | \$2,929,410 | 5.4\% | 0.6\% | 0.08 | \$6,252,788 | 6.3\% | 1.1\% | 0.17 | (0.9\%) |
| Municipals | \$2,699,016 | 5.0\% | 0.5\% | 0.39 | \$10,804,574 | 10.9\% | 1.9\% | 0.24 | (5.9\%) |
| Government MBS | \$49,851 | 0.1\% | 0.0\% | 2.36 | \$53,891 | 0.1\% | 0.0\% | 2.32 | 0.0\% |
| Totals | \$54,522,165 | 100\% | 10.9\% | 0.58 | \$99,365,948 | 100.0\% | 17.6\% | 0.24 |  |

## Maturity Distribution as of $10 / 31 / 2020$

## Credit Quality (S\&P) as of 10/31/2020

Credit Quality (Moody's) as of $10 / 31 / 2020$


Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Portfolio Earnings - PFM-Managed Accounts

|  | Portfolio Earnings <br> Quarter-Ended October 31, 2020 |  |
| :---: | :---: | ---: |
|  | Market Value Basis | Accrual (Amortized Cost) Basis |
| Beginning Value - July 2020 | $\$ 464,736,288$ | $\$ 459,468,198$ |
| Net Purchases (Sales) | $(\$ 17,709,163)$ | $(\$ 17,709,163)$ |
| Change in Value | $(\$ 833,845)$ | $\$ 75,598$ |
| Ending Value - October 2020 | $\$ 446,193,280$ | $\$ 441,834,633$ |
| Interest Earned | $\$ 534,718$ | $\$ 534,718$ |
| Porfolio Earnings | $(\$ 299,126)$ | $\$ 610,317$ |

## Notes:

1. Beginning and Ending Values exclude accrued income and cash balances at the bank.
2. Net Income includes coupon income paid, change in beginning and ending accruals, and purchased/sold accrued
3. A negative change in market value does not mean a realized loss. Losses are not realized until security/securities are sold

## Portfolio Earnings - Ramirez-Managed Accounts

|  | Portfolio Earnings Quarter-Ended October 31, 2020 <br> Market Value Basis ${ }^{1}$ | Accrual (Amortized Cost) Basis ${ }^{2}$ |
| :---: | :---: | :---: |
| Beginning Value - July 2020 | \$99,161,584 | \$99,194,094 |
| Net Purchases (Sales) | (\$44,615,996) | (\$44,615,996) |
| Change in Value | $(\$ 42,675)$ | $(\$ 60,233)$ |
| Ending Value - October 2020 | \$54,502,913 | \$54,517,865 |
| Net Income ${ }^{3}$ | \$70,087 | \$70,087 |
| Porfolio Earnings | \$27,412 | \$9,854 |

[^4] A negative change in market value does not mean a realized loss. Losses are not realized until security/securities are sold.

## III. Total Return Performance Attributes

## Total Return Portfolio Attributes



## Portfolios Managed with a Longer-Term Investment Strategy

## Longer-Term Investment Strategy

|  |  |
| :--- | :--- |
| 2003 Reserve Fund |  |
| $\square$ | BM: BAML 1-5 Year US Treasury Note Index |
| $\square$ | BPCPC Operating Reserve Contingency |
| Insurance Fund |  |
| $\square$ | Operating Budget Reserve |
| $\square$ | BM: BAML 1-10 Year US Treasury Note Index |
| $\square$ | BPCA Other Post-Employment Benefits |
| $\square$ | BM: BAML 1-10 Year US Treasury Note Index |
| $\square$ | BPCPC Other Post-Employment Benefits |
| $\square$ | BM: BAML 1-10 Year US Treasury Note Index |


| (0.14\%) | $3.25 \%$ |
| :--- | :--- |
| $\mathbf{( 0 . 1 6 \% )}$ | $3.22 \%$ |
| $\mathbf{( 0 . 4 5 \% )}$ | $3.75 \%$ |
| $\mathbf{( 0 . 4 5 \% )}$ | $3.70 \%$ |
| $\mathbf{( 0 . 4 1 \% )}$ | $3.83 \%$ |
| $\mathbf{( 0 . 5 1 \% )}$ | $3.51 \%$ |
| $\mathbf{( 0 . 4 3 \% )}$ | $3.09 \%$ |
| $\mathbf{( 0 . 5 1 \% )}$ | $2.91 \%$ |
| $\mathbf{0 . 4 6 \% )}$ | $2.63 \%$ |
| $\mathbf{( 0 . 5 1 \% )}$ | $2.68 \%$ |

Effective Duration (in years) ${ }^{3}$
October 31, 2020
July 31, 2020

|  |  | $\mathbf{2 . 7 2}$ | 2.78 |
| :--- | :--- | :--- | :--- |
| $\square$ | 2003 Reserve Fund | $\mathbf{2 . 5 7}$ | $\mathbf{2 . 5 6}$ |
| $\square$ | BM: BAML 1-5 Year US Treasury Note Index | $\mathbf{3 . 6 4}$ | 3.54 |
| $\square$ | BPCPC Operating Reserve Contingency | $\mathbf{3 . 6 0}$ | 3.61 |
| $\square$ | Insurance Fund | $\mathbf{1 . 8 7}$ | 3.56 |
| $\square$ | Operating Budget Reserve | $\mathbf{3 . 4 8}$ | 3.48 |
| $\square$ | BPCA Other Post-Employment Benefits | $\mathbf{3 . 5 3}$ | 3.49 |
| $\square$ | BPCPC Other Post-Employment Benefits | $\mathbf{3 . 7 8}$ | $\mathbf{3 . 7 7}$ |
| $\square$ | BM: BAML 1-10 Year US Treasury Note Index |  |  |




1. Performance on trade-date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.
2. 2003 Reserve Fund, Operating Budget Reserve, Insurance Fund, and the Operating Reserve Contingency Funds have temporarily suspended their investment strategies due to 2019 bond funding
3. Bank of America/Merrill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period.


 performance for the 'BPCPC Other Post Employment Benefits' is calculated from February 12, 2010 to present.

## 2003 Reserve Fund Portfolio

| Security Type ${ }^{1}$ | October 31, 2020 | \% of Portfolio | July 31, 2020 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$29,838,354 | 85.2\% | \$29,668,375 | 84.6\% | 0.6\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$2,652,523 | 7.6\% | \$2,672,198 | 7.6\% | (0.0\%) |
| Commercial Paper | \$0 | 0.0\% | \$0 | 0.0\% | 0.0\% |
| Municipal Obligations | \$781,881 | 2.2\% | \$789,488 | 2.3\% | (0.0\%) |
| Government MBS | \$1,755,221 | 5.0\% | \$1,946,259 | 5.5\% | (0.5\%) |
| Totals | \$35,027,979 | 100.0\% | \$35,076,320 | 100.0\% |  |



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## BPCPC Operating Reserve Contingency Portfolio



## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Insurance Fund Portfolio




Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Operating Budget Reserve Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## BPCA OPEB Portfolio

Security Type ${ }^{1}$
October 31, 2020
\% of Portfolio
July 31, 2020
\% of Portfolio QoQ \% Change



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.
3. NR holdings are not rated by S\&P, but rated by Moody's and are in compliance with BPCA's investment policy.

## BPCPC OPEB Portfolio



## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.
3. NR holdings are not rated by S\&P, but rated by Moody's and are in compliance with BPCA's investment policy.

# Portfolios Managed with a Shorter-Term Investment Strategy 

## Shorter-Term Investment Strategy



## Notes:

1. Performance on trade-date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.
2. Bank of America/Merrill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period.
3. Duration is the change in the value of a security that will result from a $1 \%$ change in interest rates, stated in years.
 for reference only. The actual annual return will be the result of chaining the most recent four quarterly returns.
4. Since inception performance is calculated from January 31, 2006 to present.

## 2003 Pledged Revenue



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## 2003 Project Operating Fund Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## IV. Market Commentary

## Market Commentary - Quarter Ended October 31, 2020

## SUMMARY

- Over the quarter, U.S. economic conditions were characterized by: (1) economic indicators improving at a faster-than-expected pace, yet still trailing pre-virus levels; (2) equity markets surpassing their February all-time highs before selling-off marginally in September; (3) investment-grade (IG) sector spreads continuing to grind tighter as the Fed reaffirmed its accommodative monetary policy and unconditional support of financial markets and; (4) daily COVID-19 cases remaining stubbornly high despite continued containment efforts, reminding all of its lingering presence.
- The Federal Reserve (Fed) spent the third quarter refining its messaging after deploying a wide variety of tools in Q1 and Q2. At the September Federal Open Market Committee meeting, members continued to acknowledge the "tremendous human and economic hardship" the COVID-19 pandemic is causing. In new economic projections, the Committee extended the horizon of expected zero rates through 2023. They also referenced their new inflation policy by suggesting that they will allow "inflation moderately above 2\% for some time so that inflation averages 2\% over time." Meanwhile, Fed leaders continue to strongly call for additional fiscal stimulus.


## ECONOMIC SNAPSHOT

- The U.S. economy grew at a record 33.1\% annual rate in the third quarter of 2020, recovering a significant portion of the economic loss from COVID-19 that sent the economy to its record contraction in the second quarter ( $-31.4 \%$ ). The American consumer, which accounts for about 2/3's of GDP, fueled the rebound in Q3 as personal consumption rose $40.7 \%$.
- The labor market continued to improve in Q3 of 2020 but still has an uphill battle to reach pre-pandemic levels. The unemployment rate declined to $6.9 \%$ in October, from $10.2 \%$ in July and $14.7 \%$ in April, as an additional 2.8 million people became employed over the quarter. However, total employment remains about 10 million less than in February.
- Personal income increased more than expected in September, rising $0.9 \%$ following a $2.7 \%$ decline in August, while personal spending was up 1.4\%. Consumer confidence has been mixed as the pandemic continues to cloud the economic outlook.
- The housing market may show seasonal cooling signs even as strong demand continues. While existing home sales were strong, new and pending home sales and mortgage applications fell in September.


## INTEREST RATES

- Over the quarter, 10-year Treasury yields rose 35 basis points (bps) and continued to move higher post-election in response to looming Treasury supply and better-than-projected economic data. The yields on shorter maturities were relatively unchanged and anchored near zero.
- At quarter-end, the yield on a 3-month Treasury Bill stood at 0.09\%, the 2-year note was $0.16 \%, 5$-year and 10 - year notes were $0.39 \%$ and $0.88 \%$, respectively, while the 30 -year Treasury ended the quarter at $1.66 \%$.


## SECTOR PERFORMANCE

- Momentum from the retracement of wider spreads at the onset of the pandemic continued in Q3, albeit at a reduced pace, and led to most IG fixed income sectors generating strongly positive excess returns relative to similar duration Treasuries. With narrow bond spreads, there is no strong incentive to extend risk by expanding allocations to non-Treasury sectors.
- Agency yield spreads snapped back to low single digits out to maturities inside five years. Because of higher yields and immediate spread tightening after issuance, agency indices generated excess returns, with longer-dated agencies outperforming shorter maturities.
- The IG corporate sector was a top performer in Q3 as spreads retraced nearly all the widening experienced earlier in the year, driven by low supply and strong investor appetite. Corporate issuance cooled by the end of the quarter, as expected, while returns on corporate bonds exceeded those on like-maturity Treasuries.
- The federal agency mortgage-backed security sector (MBS) continued to experience elevated prepayments as homeowners took advantage of today's low mortgage rates to refinance. As a result, the overall sector under-performed similar duration Treasuries, although a few structures and coupons generated positive excess returns.
- The taxable municipal sector continued to be quite attractive, even compared to some high-quality corporate issuers, with longer-dated securities outperforming Treasuries.

Economic Snapshot


1. Data as of Second Quarter 2020
2. Data as of Third Quarter 2019

Note: YoY = year over year, QoQ = quarter over quarter, SAAR = seasonally adjusted annual

## Interest Rate Overview



U.S. Treasury Yields

| Maturity | Oct '20 | Jul '20 | Change <br> over <br> Quarter | Oct '19 | Change <br> over Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3-month | $0.09 \%$ | $0.09 \%$ | $0.00 \%$ | $1.54 \%$ | $(1.45 \%)$ |
| 1-year | $0.12 \%$ | $0.11 \%$ | $0.01 \%$ | $1.51 \%$ | $(1.39 \%)$ |
| 2-year | $0.16 \%$ | $0.11 \%$ | $0.05 \%$ | $1.53 \%$ | $(1.37 \%)$ |
| 5-year | $0.39 \%$ | $0.21 \%$ | $0.18 \%$ | $1.52 \%$ | $(1.13 \%)$ |
| 10-year | $0.88 \%$ | $0.53 \%$ | $0.35 \%$ | $1.69 \%$ | $(0.81 \%)$ |
| 30-year | $1.66 \%$ | $1.19 \%$ | $0.47 \%$ | $2.18 \%$ | $(0.52 \%)$ |

## LIBOR Rates

| Maturity | Oct '20 | Jul '20 | Change over <br> Quarter | Oct '19 | Change <br> over Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3-month | $0.22 \%$ | $0.25 \%$ | $(0.03)$ | $1.90 \%$ | $(1.68)$ |
| 1-year | $0.33 \%$ | $0.45 \%$ | $(0.12)$ | $1.96 \%$ | $(1.63)$ |

Source: Bloomberg.

## Bank of America Merrill Lynch Index Returns

| October 31, 2020 | Duration | Yield | 3 Month | 1 Year | 3 Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1-3 Year Indices |  |  |  |  |  |
| U.S. Treasury | 1.88 | 0.16\% | (0.04\%) | 3.19\% | 2.64\% |
| Federal Agency | 1.75 | 0.23\% | 0.05\% | 2.78\% | 2.53\% |
| U.S. Corporates, A-AAA rated | 1.88 | 0.55\% | 0.22\% | 4.03\% | 3.37\% |
| Agency MBS (0 to 3 years) | 2.52 | 1.35\% | (0.26\%) | 4.32\% | 3.86\% |
| Taxable Municipals | 1.70 | 1.07\% | 0.88\% | 4.04\% | 3.57\% |
| 1-5 Year Indices |  |  |  |  |  |
| U.S. Treasury | 2.64 | 0.21\% | (0.16\%) | 4.14\% | 3.16\% |
| Federal Agency | 2.31 | 0.31\% | 0.03\% | 3.30\% | 2.79\% |
| U.S. Corporates, A-AAA rated | 2.75 | 0.73\% | 0.11\% | 5.14\% | 3.72\% |
| Agency MBS (0 to 5 years) | 2.08 | 1.36\% | 0.10\% | 3.76\% | 3.31\% |
| Taxable Municipals | 2.78 | 1.01\% | 0.37\% | 4.14\% | 3.71\% |
| Master Indices (Maturities 1 Year or Greater) |  |  |  |  |  |
| U.S. Treasury | 7.42 | 0.61\% | (2.02\%) | 7.12\% | 5.33\% |
| Federal Agency | 4.03 | 0.58\% | (0.37\%) | 4.99\% | 4.16\% |
| U.S. Corporates, A-AAA rated | 8.56 | 1.70\% | (2.16\%) | 7.42\% | 6.12\% |
| Agency MBS (0 to 30 years) | 2.41 | 1.39\% | (0.09\%) | 4.10\% | 3.78\% |
| Taxable Municipals | 11.41 | 2.73\% | (3.73\%) | 6.18\% | 7.14\% |

Returns for periods greater than one year are annualized
Source: BofA Merrill Lynch Indices

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# Battery Park City Authority 

## Investment Committee Rate Sensitivity Analysis

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BPCA (Aggregate PFM-Managed Assets)
Estimated Earnings Summary and Stress Test
Holdings as of November 30, 2020

Portfolio Stress Test -- Instantaneous Rate Shock


Summary of Market Value Earnings Estimates under Instantaneous Rate Shock

| Instantaneous | UNCH | $+\mathbf{0 . 1 0 \%}$ | $+\mathbf{0 . 2 5 \%}$ | $+\mathbf{0 . 5 0 \%}$ | $+\mathbf{1 . 0 0 \%}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Ending Portfolio Value | $448,235,741$ | $447,814,786$ | $447,183,354$ | $446,130,968$ | $444,026,196$ |
| Total Return \% | - | $(0.09 \%)$ | $(0.23 \%)$ | $(0.47 \%)$ | $(0.94 \%)$ |

## Portfolio Horizon Analysis -- 12-Month Horizon



Summary of Market Value Earnings Estimates over the Next 12 Months

| Next 12 Months | UNCH | + 0.10\% | + 0.25\% | + 0.50\% | + 1.00\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Yield Income | 825,042 | 866,599 | 928,934 | 1,032,826 | 1,240,610 |
| Price Change | 270,480 | $(69,832)$ | $(580,301)$ | $(1,431,082)$ | $(3,132,645)$ |
| Total MV Change | 1,095,522 | 796,766 | 348,633 | $(398,256)$ | $(1,892,035)$ |
| Next 12 Months | UNCH | + 0.10\% | + 0.25\% | + 0.50\% | + 1.00\% |
| Yield Income \% | 0.18\% | 0.19\% | 0.21\% | 0.23\% | 0.28\% |
| Price Change \% | 0.06\% | (0.02\%) | (0.13\%) | (0.32\%) | (0.70\%) |
| Total Return \% | 0.24\% | 0.18\% | 0.08\% | (0.09\%) | (0.42\%) |

* See important disclosures.


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## Notes to Stress Test and Earnings Estimates

1. Portfolio holdings are as of November 30, 2020.
2. Yield curve data source Bloomberg.
3. Yield curve scenarios assume parallel rate shocks in even monthly increments.
4. Security maturities occurring during the analysis period are reinvested in a 1-Year US Treasury Note.
5. Reinvestments are at assumed prevailing rates for the benchmark Treasury Note, per the interest rate scenario.
6. Spreads are assumed to remain constant.

GROW WITH US

## Sensitivity Analysis of RAM-managed Portfolios of the Battery Park City Authority

## Sensitivity Analysis of BPCA-RAM portfolios:

- As of November 30, 2020, Ramirez Asset Management ("RAM") manages $\mathbf{\$ 5 4 . 9 M M}$ in $\mathbf{2 3}$ separately managed accounts on behalf of the Authority.
- RAM conducted an "instantaneous" parallel shift scenario analysis on the combined portfolio holdings as of November 30, 2020, to simulate the aggregate portfolio performance after a one-time U.S. Treasury curve shock across the term structure of up to +150 basis points, and projecting potential returns over a 12 -month horizon (below), as well as projecting the ending market values of the aggregate portfolio after the 12-month horizon (page 2 ).


## Sensitivity Analysis-Total Return Key Assumptions (excerpted from ICE BondEdge Next-Generation)

- Total Return is allocated between Income and Price Return as follows:
- Income Return \% - Income Return includes (i) all coupon payments; (ii) all principal payments from bonds which amortized, prepaid, matured or were called or put as a result of the interest rate scenario; (iii) all reinvestment income earned on these coupon and principal payments, and (iv) amortization and/or accretion of premiums and discounts. Thus, the income return for the portfolio will reflect any changes in coupon payments for CMO floaters, inverse floaters, ARMs and Floating Rate Notes based on the specified scenario.
- Price return \% - A security's Price Return is defined as the percentage change in its market value. In both Instantaneous and Aged simulations, Horizon and Beginning prices are weighted by the bond's remaining par amount as of the horizon date. This approach is consistent with the fact that, for mortgage-backed securities and other amortizing instruments, principal which is repaid at par during the horizon will not experience the price change caused by a change in interest rates. The price change only impacts the par amount which is "alive" as of the horizon date. Similarly, Corporate bonds which are called or put during the horizon period will not experience a price return, as none of the original par value would "survive" to the horizon date if that scenario occurred.

BPCA Sensitivity Analysis—Projected Returns, Holdings as of November 30, 2020 ${ }^{(1)}$



# Sensitivity Analysis of RAM-managed Portfolios of the Battery Park City Authority 

# BPCA Total Portfolio Sensitivity Analysis Projected Market Values - 12mo Parallel Simulation 



## Sensitivity Analysis-Key Assumptions (excerpted from ICE BondEdge Next-Generation)

- An instantaneous simulation assumes that income (coupon, amortization and reinvestment) is earned over the horizon period but the portfolio's duration does not shorten with the passage of time and the securities in the portfolio do not "roll" down the yield curve. This consistent duration position is appropriate for a manager that rebalances the portfolio to maintain its initial duration, or manages the portfolio relative to a benchmark which is continuously rebalanced.
- Reinvestment Rate - The initial user-specified reinvestment rate changes according to the shift in the 6 month Treasury rate. In an instantaneous simulation this shift occurs immediately.
- Coupon Rates - In Instantaneous simulations, coupons on floating rate instruments change assuming an immediate shift in the underlying index, subject to any reset features.
- Prepayment Speeds - In Instantaneous simulations, prepayment speeds for mortgage pass-throughs, CMOs and ARMs change immediately, given the specified shift in the Treasury curve.
- Horizon Prices - Horizon prices for all security types are calculated using the horizon date spot curve and a constant OAS.


[^0]:    1. Bank of America/Merrill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period.
[^1]:    Notes:

    1. BPCA's investment guidelines does not detail sector limits for commercial paper, supranationals, or Government MBS.
    2. Commercial paper issuer limits are subject to the lesser of $5 \%$ or $\$ 250$ million per issuer.
    3. Actual (\$) include market value plus accrued interest.
[^2]:    Notes:

    1. Beginning Period Value is as of July 31, 2020 and Ending Period Value is as of October 31, 2020. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash balance.
    2. Net Transfers represent the total portfolio contributions and withdrawals during the quarter.
[^3]:    Notes:

    1. "Market Value" includes accrued interest but does not include cash balances held at the bank.
[^4]:    Notes:

    1. Underlying data for Market Value Basis supplied by Advent APX, values exclude accrued income and cash balances at the bank.
    2. Accrual (Amortized Cost) Basis data provided by custodian, BNY-Mellon.
    3. Net Income includes coupon income paid, change in beginning and ending accruals, and purchased/sold accrued interest.
